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Setting up ExchangeMWI 2.8

- Set a user to have impersonation rights on Exchange (Add these commands with Exchange Management Shell PowerShell)
 - This user will be allowed to search user's inbox for new voicemails

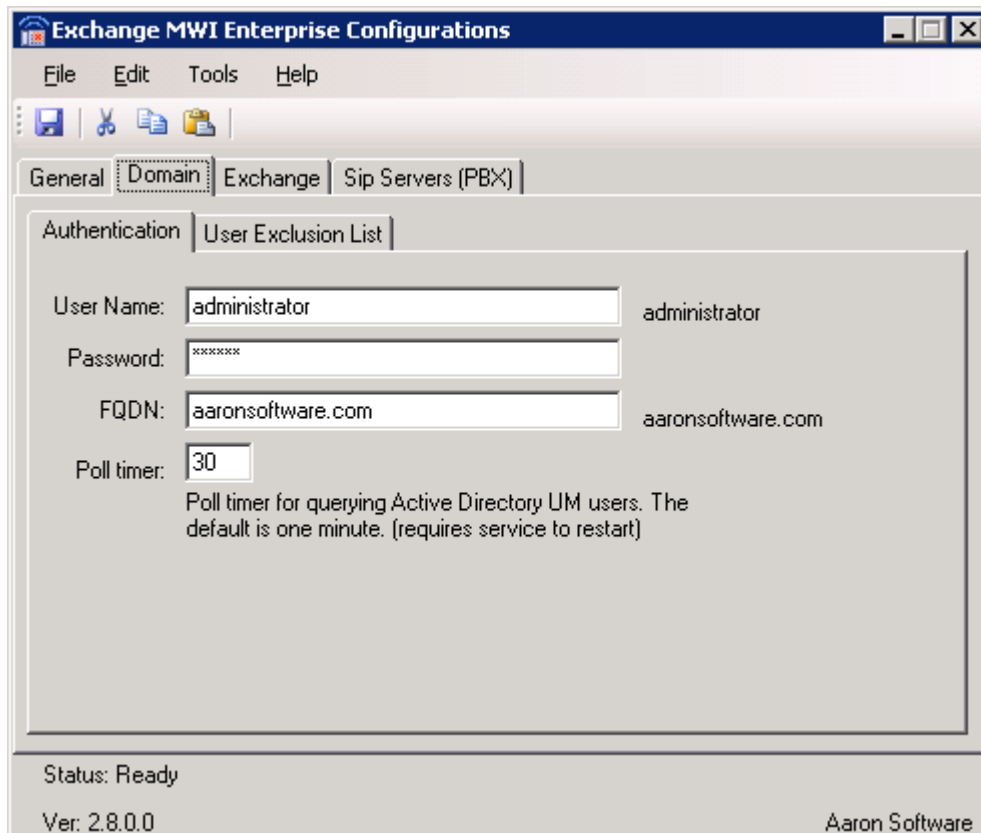
Add-ADPermission -Identity (get-exchangeserver -Identity **MyMailServer**).DistinguishedName -User (Get-User -Identity **MyUserName** | select-object).identity -extendedRight ms-Exch-EPI-Impersonation

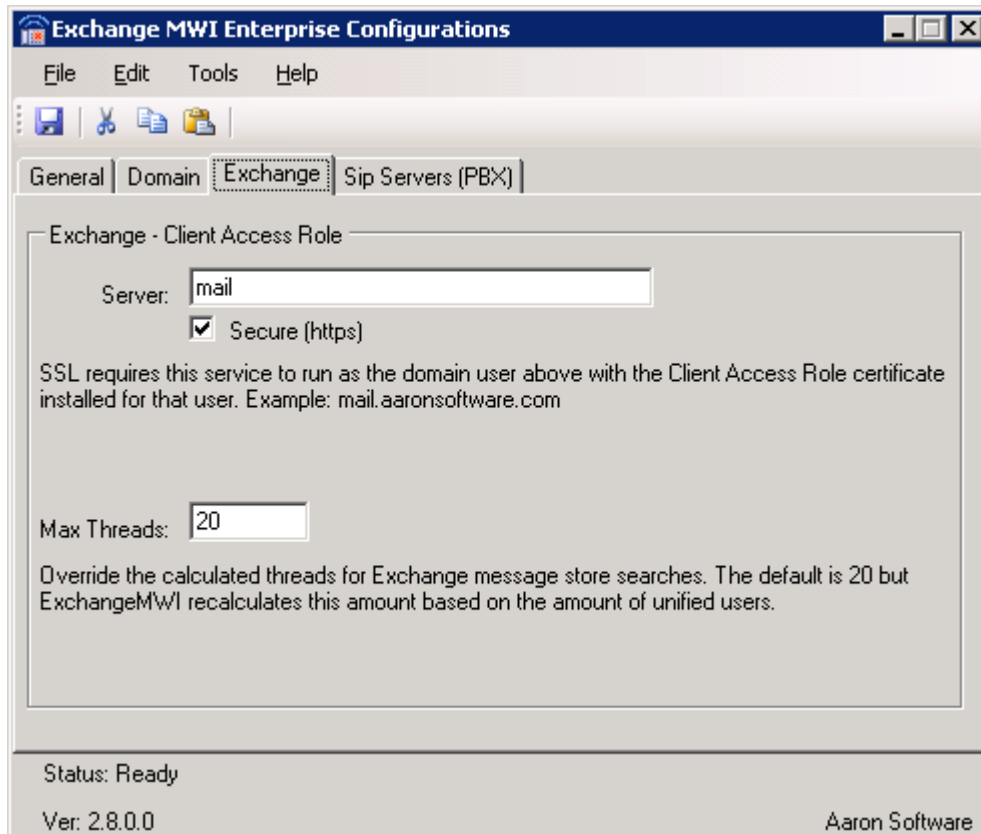
Get-MailboxDatabase | Add-ADPermission -User **MyUserName** -ExtendedRights ms-exch-EPI-May-Impersonate

-Replace **MyUserName** and **MyMailServer** with your information.

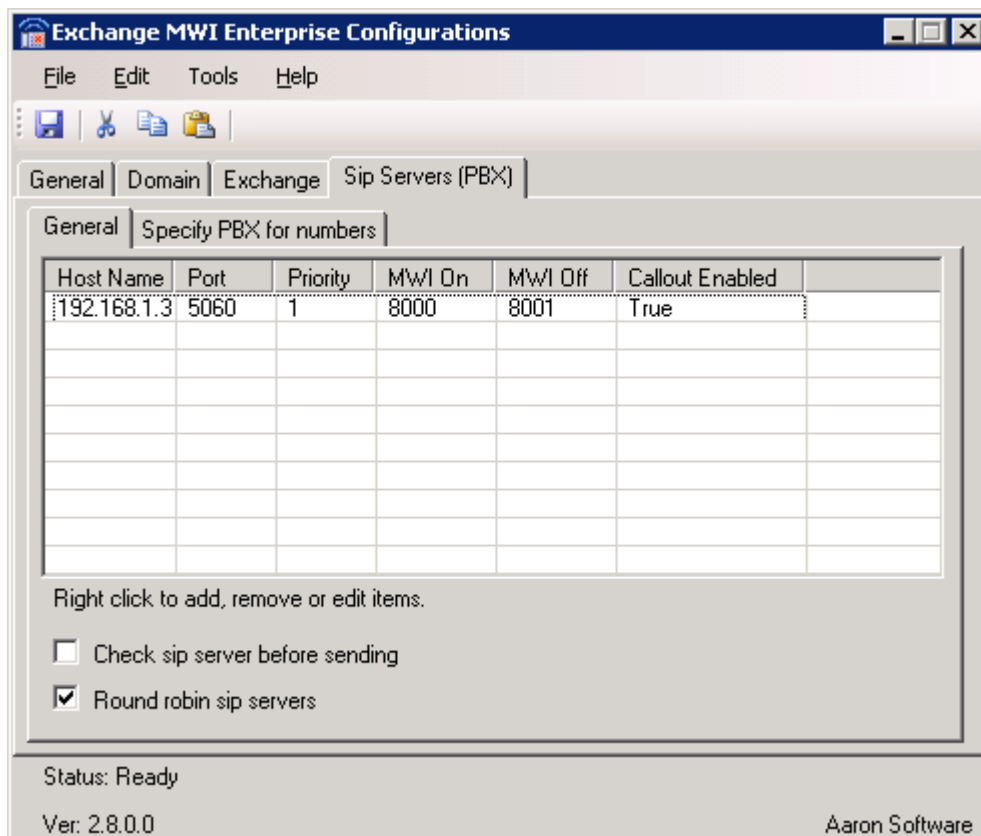
- I've noticed copying from the PDF will add little spaces and character returns. I suggest copying and pasting into Notepad to clean up the commands before executing.

- With the same user you used above fill out the Domain section with that information.
- Set the desired polling time for querying Active Directory.
- Enter in your OWA server in the Client Access Role section under the Exchange tab
- Enter in your SIP server. This is the same SIP server Exchange points to.
- Save your settings and click start.





Enter in your OWA server in the Client Access Role section under the Exchange tab



Enter in your SIP server. This is the same SIP server Exchange points to.

MWI Outcall

Version 2.8 now supports a feature called Outcall. Some PBXs systems have two numbers that are used for turning the MWI light on or off. ExchangeMWI will impersonate the phone and dial one of the numbers, resulting in the light turning on or off. This feature is internal to the PBX and the end-user will not see the SIP transaction taking place or see their phone dialing another number.

Cisco CallManager Express users should use this feature due to a bug in some IOS versions with SIP notify.

Edit Server

Server: 192.168.1.3

Port: 5060

Priority: 1 (1 being the highest and don't use the same number twice)

☒ **MWI Outcall:**

MWI On number: 8000

MWI Off number: 8001

When your PBX does not support unsolicited SIP notifications or you are having difficulty with SIP notifications you should try enabling the MWI Outcall feature.

Cancel Save

Cisco CME sample configuration

```
ephone-dn 9
number 8001
mwi off
!
!
ephone-dn 10
number 8000
mwi on
!
```

Common Setup Problems:

1. What demo users are MWI enabled

- I. Open the Event Viewer and look for the event ID 500. This will list the first five users that are enabled for MWI.

2. When using a standard user account with SSL (not a Domain Admin) ExchangeMWI is unable to create preferences and a create preference error 100 is seen in the Event log.

Reason: When using SSL the ExchangeMWI service is running as the user in the Domain section of “Exchange MWI Configurations”. While running the service as that user it inherits the user’s permissions and prevents standard user from altering the ExchangeMWI program’s folder.

Remedy: There are three different ways you can fix this and only one remedy is needed.

- I. Give the user Domain Admin rights
- II. Add the user to the local administrator’s group
- III. Give the user read/write permissions to the ExchangeMWI folder

3. How to get SSL working if your domain doesn’t have self enrollment enabled

- I. Using the user account in the Domain section of “Exchange MWI Configurations” log into Exchange OWA with Internet Explorer. <https://mailserver.yourdomain.com/owa>
- II. Click on the certificate and then click “View Certificate”
- III. On the bottom click Install Certificate
- IV. The Certificate wizard appears
- V. Leave the defaults and click next then click finish.
- VI. Within “Exchange MWI Configurations” check Secure (https) in the Client Access Role section
- VII. Click the save button
- VIII. Start the service and review the event log for any errors

4. Exchange UM is working but ExchangeMWI is not

Possible Reason: Many times in CallManager the SIP trunk’s inbound Calling Search Space doesn’t include the internal phones. This will cause SIP error message 404, representing those users are not found in the realm.

Remedy:

- Double check your Calling Search Space and the partitions associated to it.
- Look at the route pattern associated with the SIP trunk and its partition

Windows 2008 Server Issues

1. **After installing ExchangeMWI the application “Exchange MWI Configurations” does not have proper rights to its own folder. This prevents the application from creating the preference file and working correctly.**

Reason: Do to the new security Improvement in Windows 2008 the program folders are protect with a more restricted ACL applied to the folder.

Remedy: Add the *user manually to the application’s folder, either
Program Files\AaronSoftware\ExchangeMWI
Program Files (x86)\AaronSoftware\ExchangeMWI

*The user to add depends on the user currently logged into the sever editing the applications preferences. Example: If you are logged in as bjones, bjones should be added with full permissions to the folder.

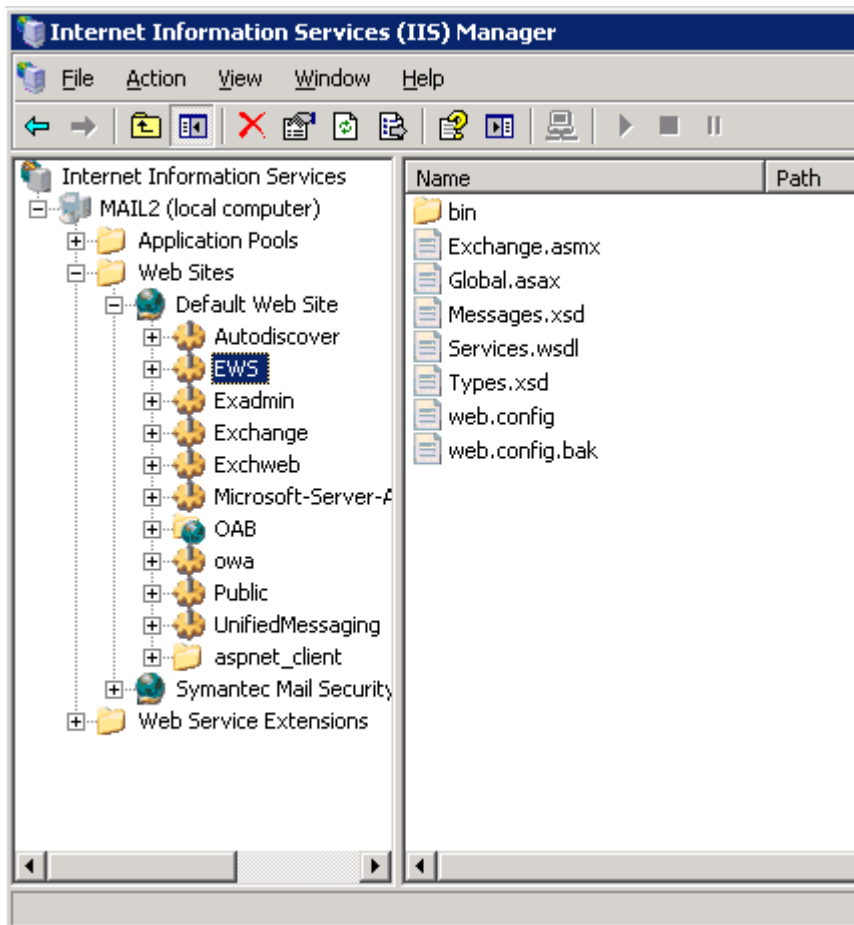
Notes: I’m highly considering moving the preferences to a better location to prevent this issue from occurring in the future.

IIS recommended setting for EWS Virtual Directory

Issue: Do to ExchangeMWI querying the Client Access Server role numerous times a minute, the IIS web log files become very large in size over time.

Remedy: You have two chooses in fixing this issue.

- 1) Turn off logging for the EWS virtual directory
- 2) Manually delete old log files
 - a. Usually found in C:\WINDOWS\system32\LogFiles\W3SVC1



EWS Properties

HTTP Headers

Custom Errors

ASP.NET

Virtual Directory

Documents

Directory Security

The content for this resource should come from:

☒ A directory located on this computer

☐ A share located on another computer

☐ A redirection to a URL

Local path:

C:\Program Files\Microsoft\Exchange S

Browse...

☐ Script source access

☐ Log visits

☒ Read

☒ Index this resource

☐ Write

☐ Directory browsing

Application settings

Application name:

EWS

Remove

Starting point:

<Default Web Site>\EWS...

Configuration...

Execute permissions:

Scripts only

Application pool:

MSEXchangeServicesAppPool

Unload

OK

Cancel

Apply

Help

Exchange Integration with Cisco CallManager

The screenshot shows the Cisco Unified CM Administration web interface in Microsoft Internet Explorer. The browser's address bar displays the URL: `https://10.20.10.1:8443/ccmadmin/sipTrunkSecurityProfileEdit.do?key=0fd98c54-30ba-4bfd-83e7-`. The page title is "SIP Trunk Security Profile Configuration - Microsoft Internet Explorer".

The Cisco Unified CM Administration header is visible, including the Cisco logo, the text "Cisco Unified CM Administration For Cisco Unified Communications Solutions", and navigation links for "admin", "About", and "Logout". Below the header, there are tabs for "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", and "Bulk Administration".

The main content area is titled "SIP Trunk Security Profile Configuration". It includes a "Related Links" section with a "Back To Find/List" link. Below this, there are icons for "Save", "Delete", "Copy", "Reset", and "Add New".

The "SIP Trunk Security Profile Information" section contains the following fields and options:

- Name***: Non Secure SIP Trunk Profile
- Description**: Non Secure SIP Trunk Profile authenticated by null Str
- Device Security Mode**: Non Secure (dropdown menu)
- Incoming Transport Type***: TCP+UDP (dropdown menu)
- Outgoing Transport Type**: TCP (dropdown menu)
- ☐ **Enable Digest Authentication**
- Nonce Validity Time (mins)***: 600
- X.509 Subject Name**: (empty text field)
- Incoming Port***: 5060
- ☐ **Enable Application Level Authorization**
- ☐ **Accept Presence Subscription**
- ☐ **Accept Out-of-Dialog REFER**
- ☒ **Accept Unsolicited Notification**
- ☐ **Accept Replaces Header**

At the bottom of the form, there are buttons for "Save", "Delete", "Copy", "Reset", and "Add New". The browser's status bar at the bottom shows "Done" and "Internet".

Make sure the “Accept Unsolicited Notification” is checked, ExchangeMWI does not login to CallManager. It only sends unsolicited Notifications.

Find and List Route Patterns - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Reload Print Mail News RSS Feeds

Address <https://10.20.10.1:8443/ccmadmin/routePattern2FindList.do?<%=reqParams%>&recCnt=08> Go Links

Cisco Unified CM Administration Navigation Cisco Unified CM Administration Go

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration

Find and List Route Patterns

+ Add New Select All Clear All Delete Selected

Status

14 records found

Route Patterns (1 - 14 of 14) Rows per Page 50

Find Route Patterns where Pattern begins with Find Clear Filter + -

<input type="checkbox"/>	Pattern ^	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/>	1000	Exchange UM Route Pattern			e12_trunk	
<input type="checkbox"/>	1100	AA-Test	MetroPT		e12_trunk	
<input type="checkbox"/>	1101				e12_trunk	

Done Internet

Make sure your Route Pattern points to the e12_trunk (The SIP trunk to Exchange 2007)

Trunk Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail News RSS Feeds

Address <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbcf80e7> Go Links »

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

admin | About | Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Trunk Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

Status: Ready

Device Information

Product:	SIP Trunk
Device Protocol:	SIP
Device Name*	<input type="text" value="e12_trunk"/>
Description	<input type="text"/>
Device Pool*	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value=" < None >"/>
Call Classification*	<input type="text" value=" Use System Default"/>
Media Resource Group List	<input type="text" value=" < None >"/>
Location*	<input type="text" value=" Hub_None"/>
AAR Group	<input type="text" value=" < None >"/>
Packet Capture Mode*	<input type="text" value=" None"/>
Packet Capture Duration	<input type="text" value=" 0"/>

☐ Media Termination Point Required

☒ Retry Video Call as Audio

☐ Transmit UTF-8 for Calling Party Name

☐ Unattended Port

Done Internet

Trunk Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites RSS Print Mail News Groups People

Address <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbcf80e7> Go Links »

Cisco Unified CM Administration
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Navigation Cisco Unified CM Administration Go

admin | About | Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Trunk Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain < None >

Call Routing Information

Inbound Calls

Significant Digits* All

Connected Line ID Presentation* Default

Connected Name Presentation* Default

Calling Search Space Metro

AAR Calling Search Space < None >

Prefix DN

☒ Redirecting Diversion Header Delivery - Inbound

Outbound Calls

Calling Party Selection* Originator

Calling Line ID Presentation* Default

Calling Name Presentation* Default

Caller ID DN

Caller Name

☒ Redirecting Diversion Header Delivery - Outbound

Done Internet

Trunk Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbcf80e7> Go Links >>

Cisco Unified CM Administration
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Navigation Cisco Unified CM Administration Go

admin | About | Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Trunk Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

☒ Redirecting Diversion Header Delivery - Outbound

SIP Information

Destination Address* 10.0.10.7

☐ Destination Address is an SRV

Destination Port* 5060

MTP Preferred Originating Codec* 711ulaw

Presence Group* Standard Presence group

SIP Trunk Security Profile* Non Secure SIP Trunk Profile

Rerouting Calling Search Space Metro

Out-Of-Dialog Refer Calling Search Space < None >

SUBSCRIBE Calling Search Space < None >

SIP Profile* Standard SIP Profile

DTMF Signaling Method* No Preference

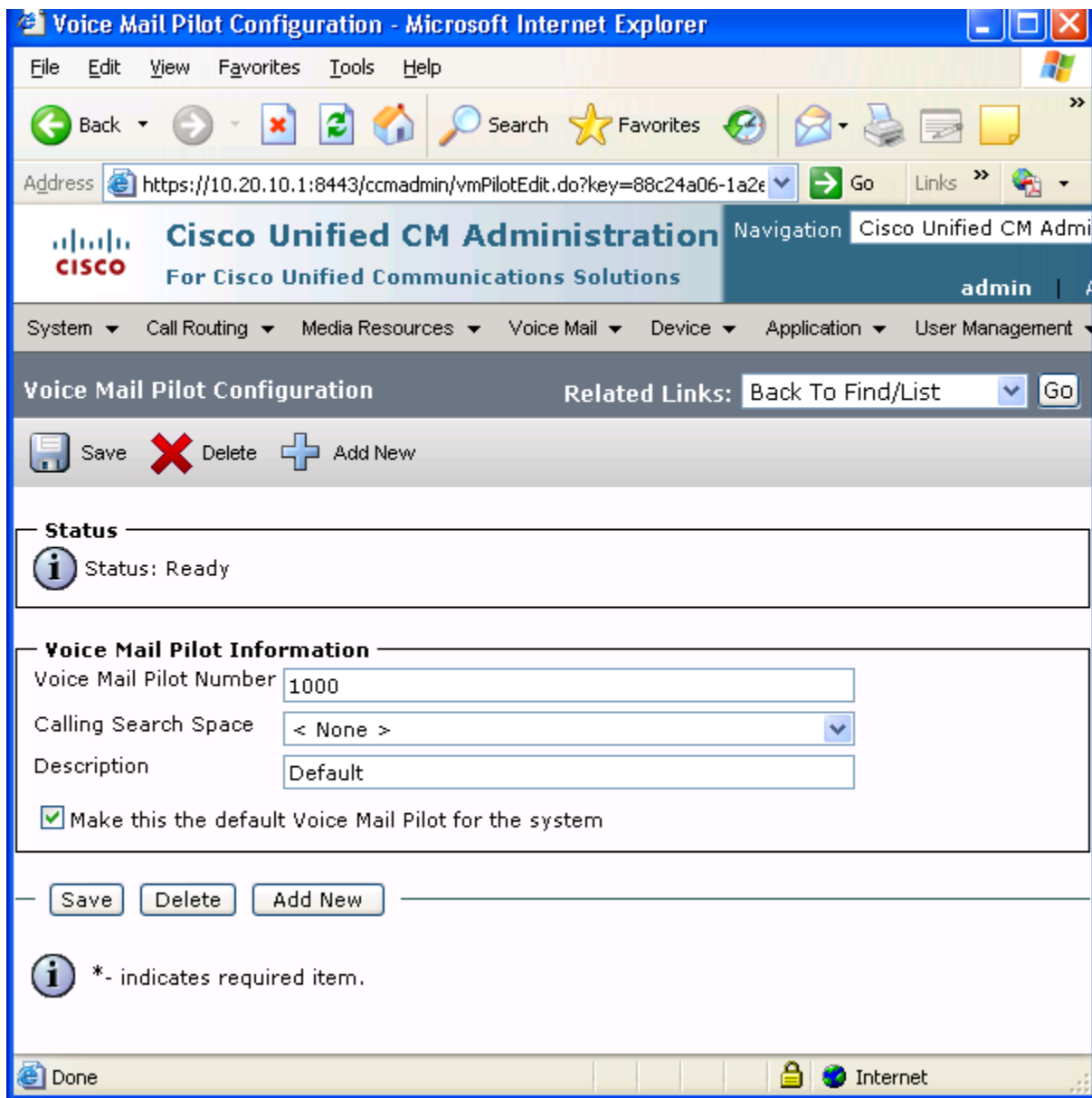
Save Delete Reset Add New

i *- indicates required item.

i **- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

Done Internet

- 10.0.10.7 is my Exchange Unified Messaging server role's IP address.
- The "Rerouting Calling Search Space" will allow Exchange to reroute a call from the directory to an extension.



Add the Voice Mail Pilot number for user's to dial to reach your Exchange Voice Mail Server

This number is then referenced in the Route Pattern that is associated to the e12_trunk (SIP Trunk)

SIP Profile Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Mail Print Send To Favorites

Address <https://10.20.10.1:8443/ccmadmin/sipProfileEdit.do?key=fcbc7581-4d8d-48f3-91> Go Links »

Cisco Unified CM Administration Navigation Cisco Unified CM Administration


CISCO For Cisco Unified Communications Solutions admin | About |

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk A

SIP Profile Configuration Related Links: Back To Find/List ▾ Go

Copy Reset + Add New

Status

 Status: Ready

SIP Profile Information

Name*

Description

Default MTP Telephony Event Payload Type*

☐ Redirect by Application

☐ Disable Early Media on 180

Done Internet

Double check your SIP Profile has the payload of type 101.

Exchange Steps

1. Dial Plan

SIP-DP Properties

Settings

Dialing Rule Groups

Dialing Restrictions

General

Subscriber Access

Dial Codes

Features

☒ Allow callers to transfer to users

☒ Allow callers to send voice messages

Callers can contact:

☒ Users within this dial plan

☐ Anyone in the default global address list

☐ Only this extension:

☐ Only this auto attendant:

☐ Anyone in this address list:

Browse...

Matched name selection method:

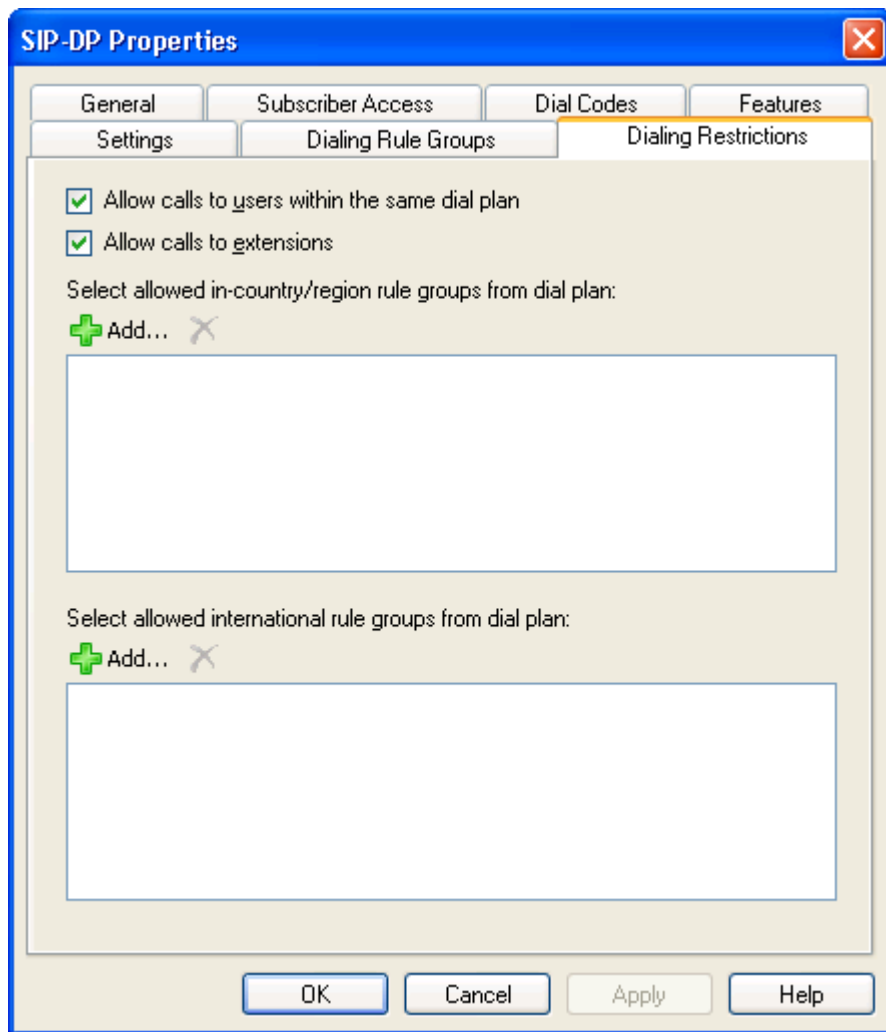
None

OK

Cancel

Apply


Help



2. UM IP Gateways – This is the CallManager Server's IP address

10.20.10.1 Properties [X]

General



Status: Enabled

Modified: Monday, June 02, 2008 2:51:36 PM

☒ IP Address:

Example: 192.168.10.10

☐ Fully qualified domain name (FQDN):

Example: smarthost.company.com

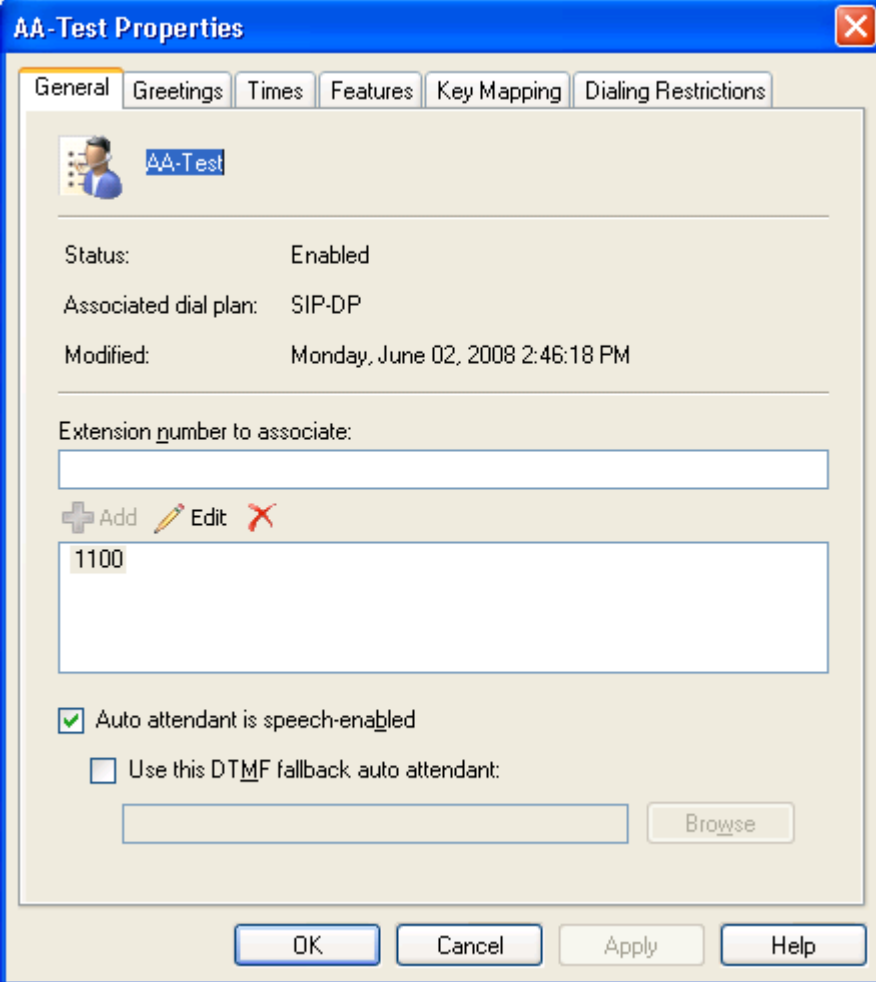
☒ Allow outgoing calls through this UM IP gateway

OK Cancel Apply Help

I used the defaults for the rest of the “Unified Messaging” configurations within Organization Configuration. Except for the Dial Plan I used four digit numbers.

Auto Attendant

1. Create a new Route Pattern to an unused number and associate it to the e12_trunk(SIP Trunk)



The image shows a Windows-style dialog box titled "AA-Test Properties". It has a blue title bar with a close button (X) in the top right corner. Below the title bar is a tabbed interface with five tabs: "General", "Greetings", "Times", "Features", and "Dialing Restrictions". The "General" tab is currently selected. Inside the "General" tab, there is a header section with a small icon of a person and the text "AA-Test". Below this, there are three lines of text: "Status: Enabled", "Associated dial plan: SIP-DP", and "Modified: Monday, June 02, 2008 2:46:18 PM". A horizontal line separates this from the next section, which is labeled "Extension number to associate:". Below this label is a text input field. Underneath the input field are three icons: a plus sign for "Add", a pencil for "Edit", and a red X for "Delete". Below these icons is a list box containing the number "1100". At the bottom of the dialog, there are four buttons: "OK", "Cancel", "Apply", and "Help".

AA-Test Properties

General | Greetings | Times | Features | Key Mapping | Dialing Restrictions

AA-Test

Status: Enabled

Associated dial plan: SIP-DP

Modified: Monday, June 02, 2008 2:46:18 PM

Extension number to associate:

+ Add | Edit | X

1100

☒ Auto attendant is speech-enabled

☐ Use this DTMF fallback auto attendant:

Browse

OK | Cancel | Apply | Help

AA-Test Properties



General Greetings Times Features **Key Mapping** Dialing Restrictions

☒ Enable business hours key mapping

+ Add... Edit... X

#	Name	Extension	Auto Attendant	Audi
1	1	2001		

☐ Enable non-business hours key mapping

+ Add... Edit... X

#	Name	Extension	Auto Attendant	Audi
---	------	-----------	----------------	------

OK

Cancel

Apply

Help

AA-Test Properties



General

Greetings

Times

Features



Key Mapping

Dialing Restrictions



☒ Allow calls to uusers within the same dial plan

☒ Allow calls to extensions

Select allowed in-country/region rule groups from dial plan:

 Add... 

Select allowed international rule groups from dial plan:

 Add... 

OK

Cancel

Apply

Help